access and circulation improvements

ORIGINAL
COMPLETED

# LAKE HOTEL
# YELLOWSTONE
NATIONAL PARK · WYOMING / MONTANA / IDAHO

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# ENVIRONMENTAL ASSESSMENT

# LAKE HOTEL
# ACCESS AND CIRCULATION IMPROVEMENTS

YELLOWSTONE NATIONAL PARK

(Package No. 620 FA)

Prepared by:

U.S. Department of the Interior

National Park Service

Denver Service Center

May 1987

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U.S. Department of the Interior

National Park Service

# Lake Hotel

# Access and Circulation Improvements

Yellowstone National Park

Teton County, Wyoming

## Summary

This environmental assessment describes development proposals to improve the external visitor circulation and access to the Lake Hotel, Yellowstone National Park. Developments proposed include road and entry drive modifications, parking modifications, architectural improvements, and landscaping.

Disturbance to soils and vegetation would occur over approximately 2.3 acres within this area. Resources within 1.7 acres of this total disturbed area would be lost for the lifetime of the proposed roads and parking: 0.6 of an acre would be temporarily disturbed by construction activities and then revegetated.

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# TABLE OF CONTENTS

PURPOSE AND NEED FOR THE PROPOSED ACTION.................................. 1

ALTERNATIVES CONSIDERED.................................................. 8
  Preferred Alternative................................................. 8
  No Action Alternative.................................................16

AFFECTED ENVIRONMENT.....................................................18

ENVIRONMENTAL CONSEQUENCES...............................................20

CONSULTATION/COORDINATION/REFERENCES/PREPARER............................25

GRAPHICS

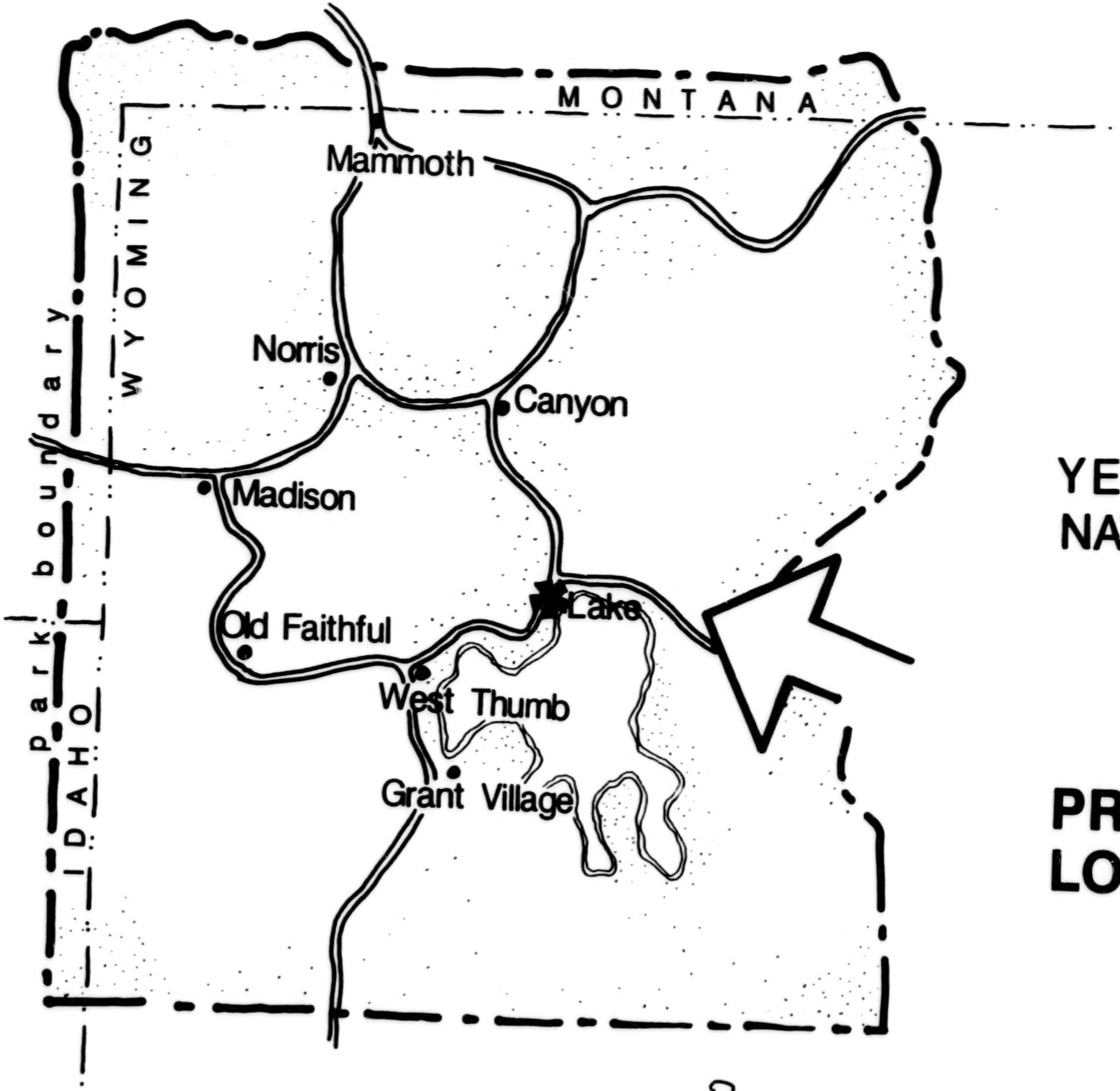
  Project Location Map.................................................. 2
  Existing Conditions Map............................................... 3
  Existing Rear Entry Area Photograph................................... 5
  Existing Service Area Photograph...................................... 7
  Proposed Access and Circulation Modifications Map.....................10
  Architectural Sketch - Hotel Modifications............................13

## PURPOSE AND NEED

Yellowstone National Park is a major destination for tourists from throughout the United States and the world. The Lake developed area, on the northwest side of Yellowstone Lake, has long been one of the prime visitor attractions in Yellowstone (see Project Location Map). The original alignment of the Grand Loop Road brought visitors along the lakeshore arriving at the porte cochere at the front of the Lake Hotel, an attractive historic structure determined eligible for listing on the National Register of Historic Places.

Facilities in the Lake area include the Lake Hotel, the Lake Lodge, and associated cabins; NPS and concessioner employee dormitories and trailer courts; a general store and gas station; a National Park Service ranger station, office buildings, two boat houses, maintenance facilities, and employee residences; a hospital; fish hatchery; post office; parking lots; access roads; and remnants of the old lakeside Grand Loop Road (see Existing Conditions map).

There are two historic districts within the Lake area. The Fish Hatchery District was listed on the National Register of Historic Places on June 25, 1985. A Lake Hotel Historic District will be included in the Multiple Resource National Register Nomination currently in preparation by the Rocky Mountain Regional Office. Preparation of the multiple resource nomination requires evaluation of all park historic structures nominated but not yet listed, or proposed to be nominated for inclusion on the National Register.



# YELLOWSTONE NATIONAL PARK

# PROJECT LOCATION

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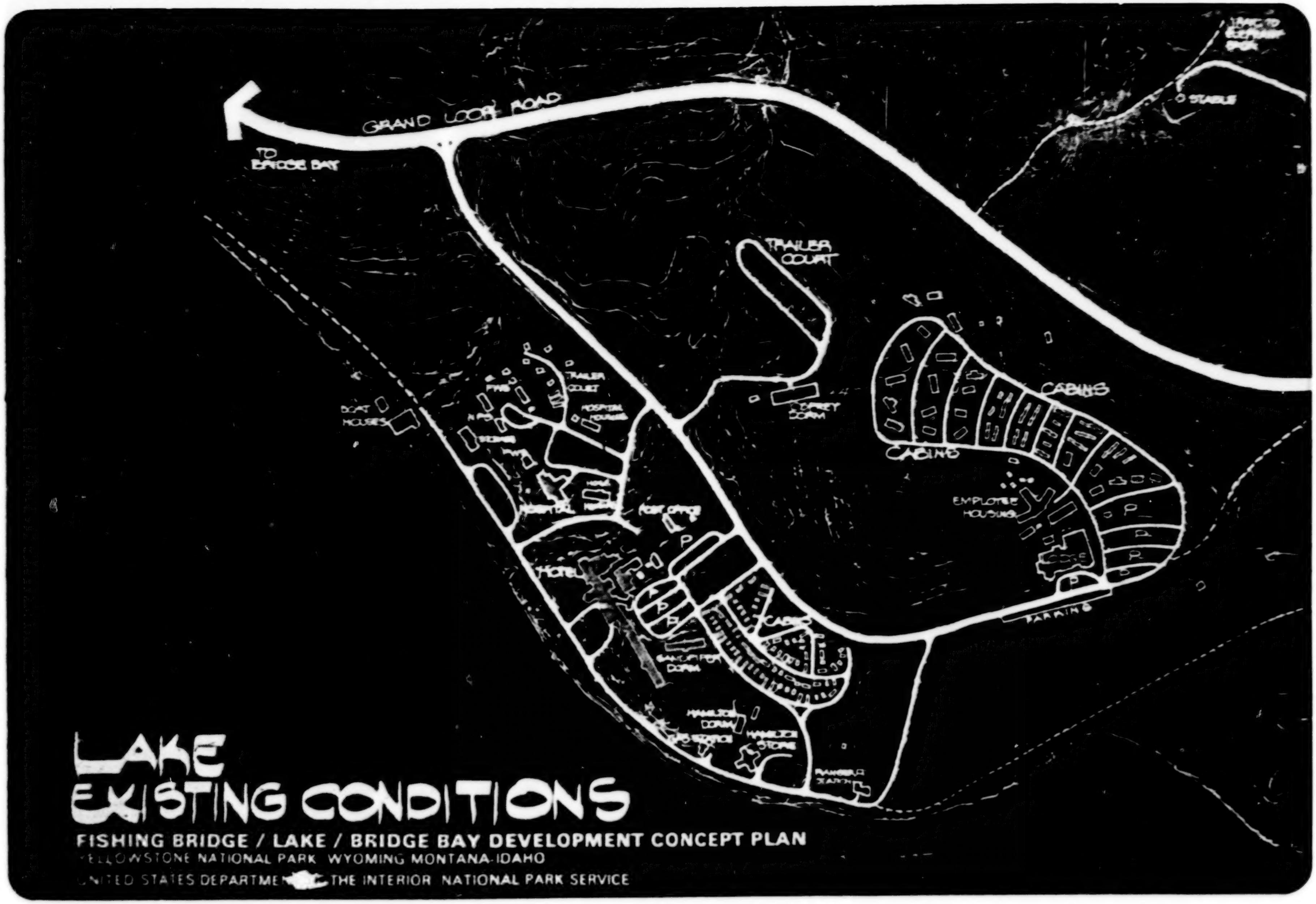

# LAKE
# EXISTING CONDITIONS

FISHING BRIDGE / LAKE / BRIDGE BAY DEVELOPMENT CONCEPT PLAN
YELLOWSTONE NATIONAL PARK WYOMING MONTANA-IDAHO
UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

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The Grand Loop Road was rerouted around the Lake developed area in 1971 to eliminate hazardous intersections, congestion, and numerous roadside conflicts for visitors. A new circulation system was developed within the Lake area in response to the rerouting. The main access road to the Lake area now brings visitors from the bypass road through a forested area past several intersections with service roads. A spur access road was constructed to take visitors from the main access road to the front of the hotel, but is little used by the visitor due to confusion and congestion. The spur road is heavily used by area employees because it also provides access to residential areas, administrative offices, and the post office as well as the rear of the hotel (kitchen service/delivery area). Arriving visitors are often confused because of the clutter of non-visitor facilities, despite the fact that the intersection of the spur road and the main access road is posted with directional signing. Consequently, visitors usually proceed past the intersection toward a visible entry at the rear of the hotel.

The hotel parking area is too small and improperly designed to facilitate good access to the hotel entrances. During high visitation periods when the parking lot is filled to capacity, visitors frequently park on the median islands. The congestion problem in the parking area is caused from primary and secondary arrival/departure sites as well as a service entrance existing on this side of the building.

The primary entrance (leading to the registration lobby) is defined by a T-shaped canopy that intersects the hotel at an awkward angle (see Existing Entry Area photograph). It is visually unattractive and architecturally incompatible with the historic structure. This element combined with an

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assortment of screen fence styles and lack of landscaping creates a poor visual image and visitor experience.

The secondary entrance (leading to the elevator lobby) is only 24 feet from the hotel's service entry. There is no visual or sound separation between these two entrances. Therefore, the visitor is directly exposed to laundry, trash, and various delivery activities (see Existing Service Area photo).

Excessive activity at the rear of the hotel is also distracting to guests occupying rooms facing the parking area.

The visitor experience while approaching this significant resource is less than desirable. Rarely are visitors exposed to the lake resource or to the front of the historic Lake Hotel. This situation, combined with the visitor and service entrance conflicts, has produced a condition that is inconsistent with the National Park Service's mandate to provide a quality experience.

A new development concept plan and environmental assessment for the entire Lake/Bridge Bay Area is currently being prepared by the National Park Service. Actions proposed in this environmental assessment are in agreement with the objectives for the DCP/EA, and have been reviewed to ensure that the present actions will not preclude the selection and implementation of more comprehensive development and circulation alternatives under consideration in that plan.

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# ALTERNATIVES CONSIDERED

## PREFERRED ALTERNATIVE

The preferred alternative would bring arriving visitors to the front of the historic Lake Hotel and return primary guest orientation/registration to this area. The rear of the hotel would be used for secondary visitor drop off and hotel access from the parking area. The service entry at the back of the hotel would be separated from the guest entry (see Access and Circulation Modifications map). Architectural modifications and landscaping would improve the appearance of the hotel and grounds as viewed from the west side and the rear.

### Circulation

To improve access to the front of the hotel, the existing spur road intersection would be replaced with a new intersection on the main Lake access road. This intersection, approximately 300 feet east of the existing spur road, would be more visible to arriving visitors. The new road alignment would separate visitor traffic from employee traffic. To avoid the visual intrusion, most of the kitchen delivery area would be screened with plantings.

The existing spur road would be maintained as a service road only. It would access employee residences, offices, and the hospital's emergency entrance and employee parking. The existing road would no longer continue to the lakefront road but stop at this access to employee facilities.

The new visitor spur road would tie into the existing road near this point. The existing hospital access road between the hotel and the rear of the hospital would be closed to public use and modified for emergency vehicle access. The asphalt and road base materials would be removed. Open concrete-block pavers would be placed along this alignment to stabilize the soil. The roadway would then be planted with native plant species.

### Hotel Front

The existing entry drive would be modified to reduce the steepness of the drive and provide an adequate turning radius for buses and other large vehicles. A small registration parking area for 6-8 automobiles would be provided. Because the existing porte cochere is too low to accommodate large vehicles (buses and recreational vehicles), an additional parking lane would be provided at the entrance outside of the port cochere. Parking and accessible ramps would be developed at this entrance for use by mobility-impaired visitors.

### Hotel Rear

At the rear of the hotel, primary entry would be redirected from the doorways leading to the registration lobby to the east wing guest entry leading to the elevator lobby.

The existing entrance canopy at the registration lobby entrance would be removed. The entrance vestibule would be removed as well. A portico would be constructed above the doorway to identify it as an entrance. The portico

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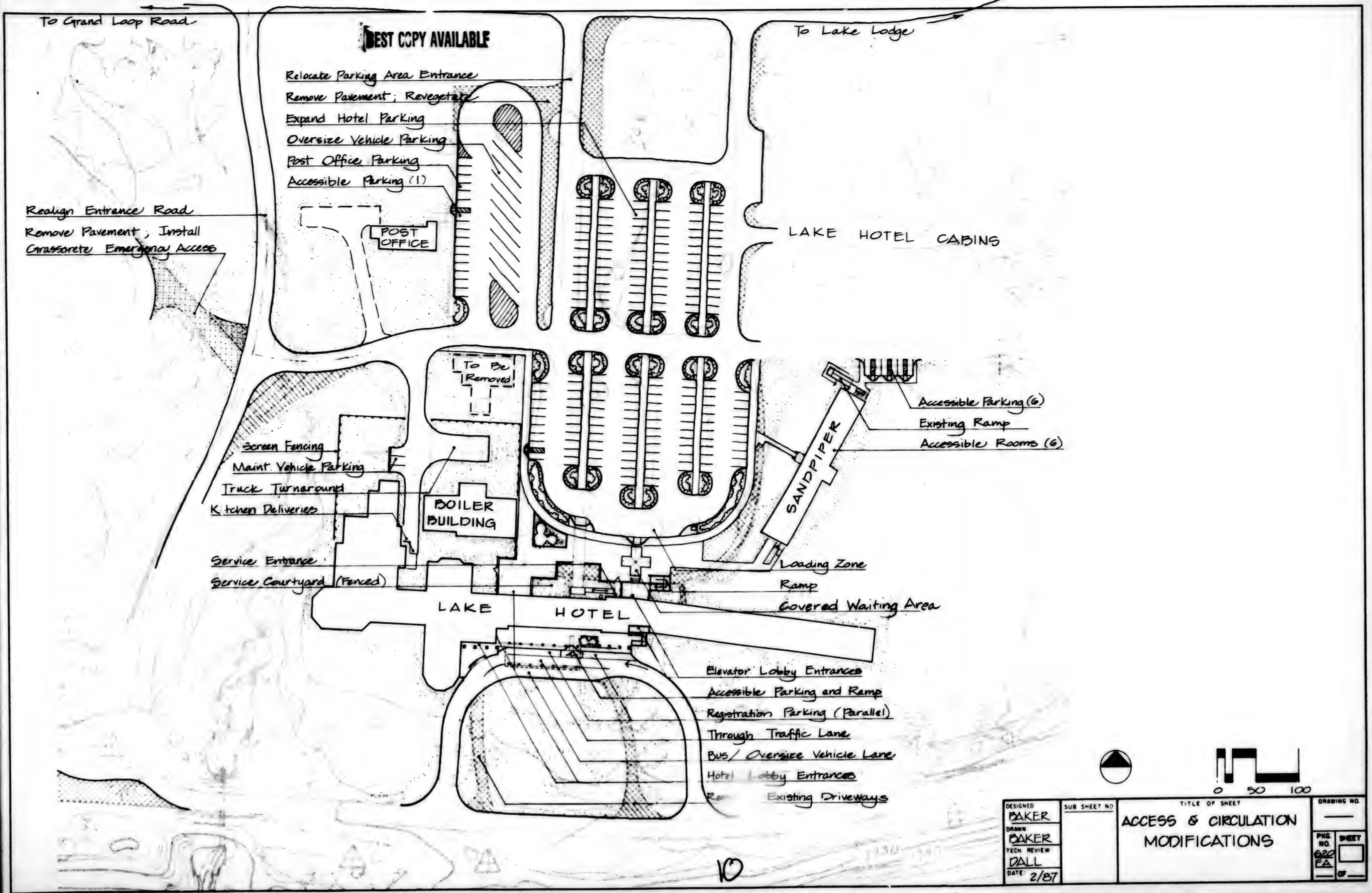

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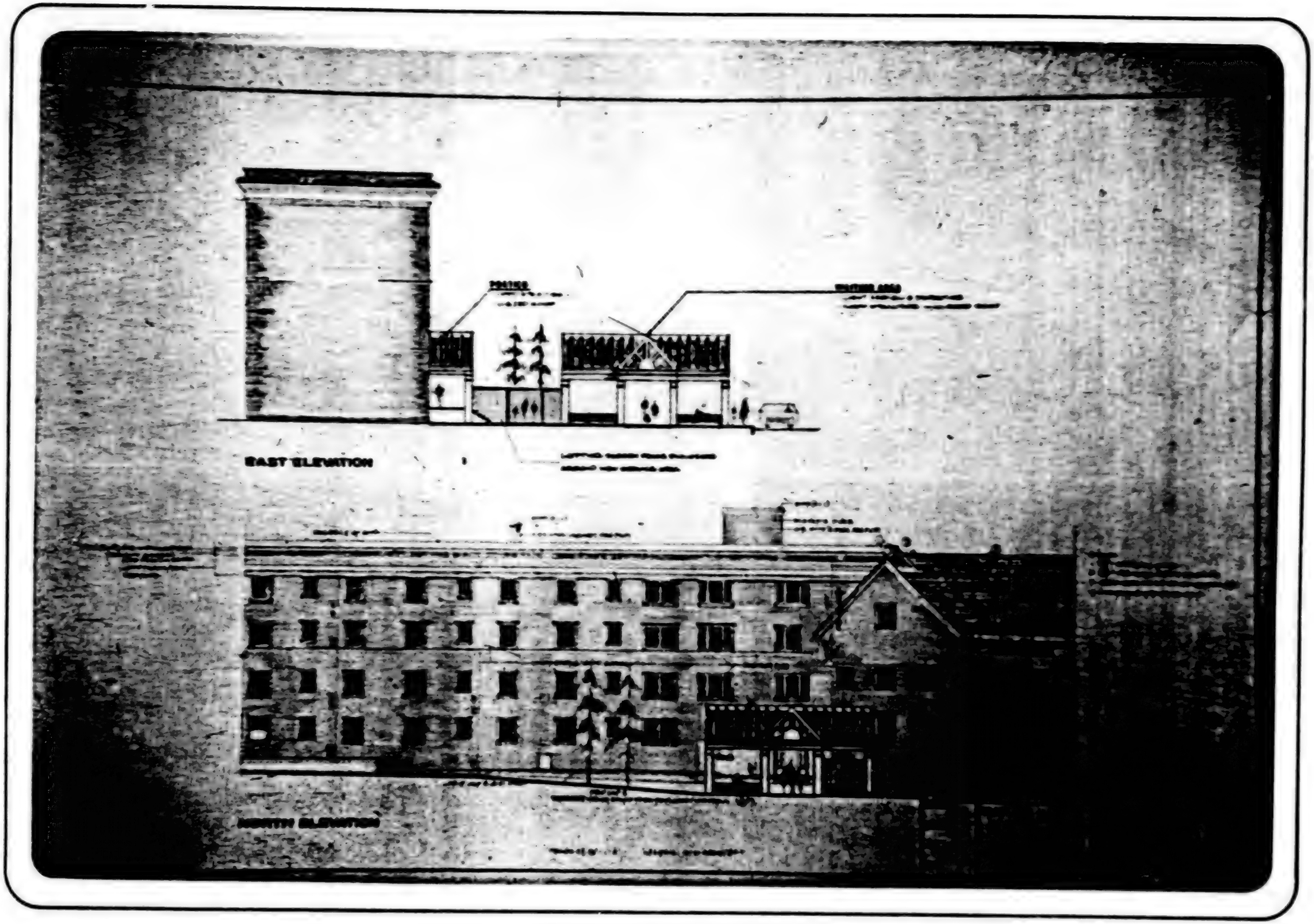
would have a simple gable design complementary to the historic design and fabric of the hotel.

To define the elevator lobby entrance as the primary visitor entrance at the rear of the hotel, a guest arrival and waiting structure would be constructed to provide a distinct and identifiable entry. The structure would be a simple, free-standing shelter on the walkway in front of the doorway entrance and adjacent to the visitor drop-off and loading zone. Its design would have two elevated gables crossing at their centers (a cruciform in plan view). It would have a solid-glazed roof with exposed structural components and would provide shelter for visitors arriving and departing the hotel. Above the doorway to the elevator lobby entrance, another portico would be constructed. Its design would complement the historic design and fabric of the hotel as well as the detached guest arrival and waiting structure adjacent to it (see sketch of detached shelter and doorway portico).

The linen room near the elevator lobby entrance would be modified to improve handling and distribution of materials (linen, housekeeping supplies, trash). An elevator would be installed to improve vertical circulation of linens and housekeeping materials. A trash compactor would also be installed in the main floor linen room to improve trash removal.

To separate the new primary rear entrance from service activities, a loading dock and service drive would be constructed. The entire service courtyard would be fenced to screen the activities from the visitor.



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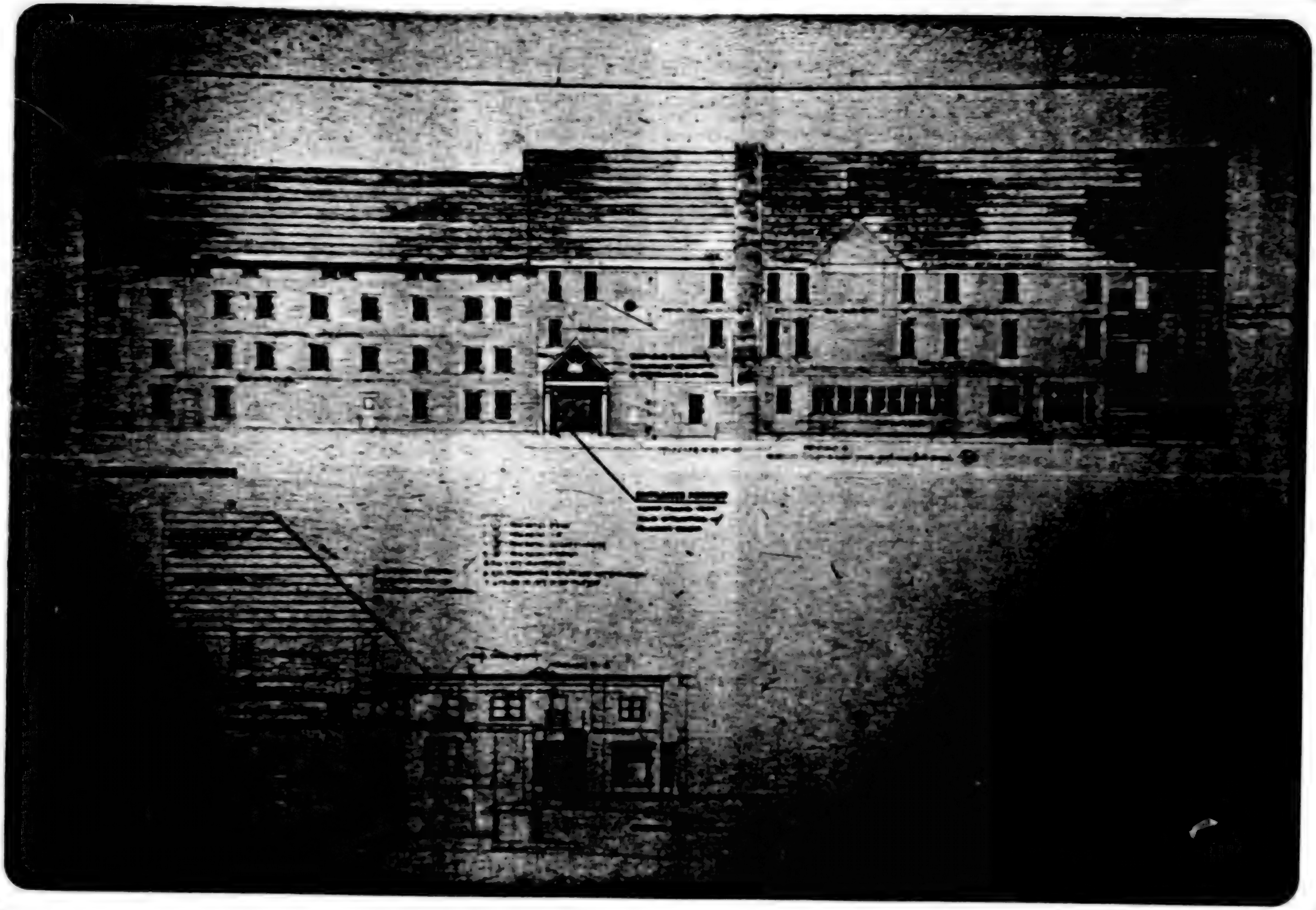

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The existing curbline would be moved approximately 40 feet away from the hotel and extend from the hotel to the Sandpiper dormitory. This widening of the walkway would provide the necessary space for the previously discussed service courtyard, the guest arrival and waiting structure, drop-off and loading zones out of traffic, and improved pedestrian circulation through the area.

All of these developments would be designed for use by mobility-impaired visitors.

## Parking Area

The parking area would be modified to improve circulation for hotel visitors and post office users (see Access and Circulation Modifications map). The west roadway entrance to the parking area would be relocated to improve access and circulation through the parking area. This new entrance would align with the exterior parking aisle on the west side of the parking area. A slight straightening of the east entrance would provide the same throughway along the east side of the parking area.

Minor straightening of existing islands in the parking area would be accomplished. Straightening would improve circulation and increase area capacity by allowing for a more efficient parking layout.

The post office parking area would be separated from the hotel parking area to avoid congestion.

The current parking lot capacity at the rear of the hotel is 151 cars (8 of these are mobility-impaired spaces) plus 10 oversized vehicles. Visitor parking at the rear of the hotel would be increased to accommodate 198 vehicles including nine parking spaces for the mobility impaired and ten spaces for oversized vehicles.

Access to the Sandpiper dormitory (which would eventually provide additional guest accommodations) would be improved. Six additional parking spaces would be provided at the north end of this building where accessible rooms for mobility-impaired visitors are located.

A direct connection between the front of the hotel and the rear parking area would be provided by developing a roadway segment between the proposed new spur road and the parking area. This segment would follow much of the existing roadway leading to the hotel's kitchen service area entrance. It would continue past the kitchen area parking and connect to the west side of the parking area south of the post office.

## NO-ACTION

The existing access road to the front of the Lake Hotel would remain. Because the hotel's rear entrances are easier for visitors to locate, the front entrance would continue to receive minimal use. Conflicts between visitors and service vehicles would continue at the rear of the hotel because visitor entry to the hotel would continue to be concentrated at the rear. Visitor exposure to trash removal, linen drop-off and pickup, and other service activities would continue due to the proximity of visitor and service entrances at the rear of the hotel. During peak visitation periods, visitors may continue to park on islands because of the parking area's inadequate size.

# AFFECTED ENVIRONMENT

## NATURAL RESOURCES

Obsidian sand predominates throughout the area. Vegetation in the vicinity of the hotel is predominantly grasses, sagebrush, and Idaho fescue. The amount of vegetative cover is limited by soil conditions and foot traffic in the area. The area receives excessive trampling by both visitors and employees. Lodgepole pine, Engelmann spruce, and subalpine fir are scattered around the development. No threatened or endangered plant species are present (personal communication with park staff, February 1987).

Wildlife in the area includes the threatened grizzly bear (Ursus arctos horribilis) and the endangered northern bald eagle (Haliaeetus leucocephalus). Also present are elk, bison, black bear, deer, squirrels, moose and numerous species of birds.

Should noise/air emissions from idling vehicles become a problem, management actions such as posting signs limiting idling time will be taken as necessary.

## CULTURAL RESOURCES

### Archeological Resources

Survey work in and around tne project area has occurred over past years for other development projects. No known archeological sites would be affected by the proposed improvements. However, further archeological investigation will be necessary prior to any ground-disturbing activities in areas previously undisturbed (personal communication with Rocky Mountain Regional Office staff, March 1987).

## Historical Resources

The Lake Hotel was determined eligible for inclusion on the National Register of Historic Places by the Keeper of the Register in January of 1980. Because the Park Service is preparing a Multiple Resource National Register Nomination package for all historic structures within the park's boundaries, listing of the hotel in the National Register will be delayed until the nomination package is completed. The Regional Office will provide the State Historic Preservation Officer and the Advisory Council on Historic Preservation the opportunity to comment on this undertaking prior to National Park Service approval.

# ENVIRONMENTAL CONSEQUENCES

## PREFERRED ALTERNATIVE

### Natural Resources

Ground disturbance from road realignment and parking area expansion would impact a 2.3-acre area. About 75 percent of the development would occur in areas previously undisturbed by construction activities; although disturbance from foot traffic is evident. Approximately 1.7 acres of soil and vegetation would be displaced by pavement for the lifetime of the roads and associated parking and walks. Six-tenths of an acre would be disturbed temporarily by construction activities and later revegetated. Site restoration work in the area would assist vegetative recovery and soil stabilization.

Compaction of soil around the roads and parking lot would occur as a result of construction activities and increased foot traffic after completion of the project. Increased compaction would slow percolation of moisture therefore increasing the runoff in the area. The increased runoff in these areas may result in localized increases in erosion and changes in soil nutrient transport. Until drainage structures are fully operable and vegetation recovers in the cleared areas, runoff would increase and accelerated soil erosion would occur.

Site preparation for the roads and parking area would result in disturbance to 2.3 acres of earth, destroying the existing soil structure. Topsoil removed from construction sites would be used to supplement any shortages of topsoil incurred in the project. Topsoil would be replaced in disturbed areas prior to reseeding with native grasses. One-half acre of existing pavement in the parking area would be removed and restored to a more natural condition. Pavement would be removed from the existing access road to the rear of the hospital. replaced with stabilizing pavers, then seeded.

Road construction and parking area expansion would completely destroy vegetation. The National Park Service construction supervisor would make minor field alignment changes to avoid removal and disturbance of trees when necessary and practical. Disruption to soils and vegetation would be minimized by using careful construction techniques and post-construction restoration. Restoration would insure quick stabilization of disturbed soils. It may be necessary to import soil to aid in the revegetation process. A monitoring program would be established to insure there is no colonization of exotic plants during post-construction restoration.

Some displacement of larger wildlife may occur due to construction activity creating noise, dust, and fumes, although these areas are already disturbed by existing traffic. Neither the grizzly bear nor the bald eagle are expected to be affected by the proposed project. Both species are highly mobile and construction would not occur in critical habitat areas for either species. Concurrence with this determination of no effect by the Fish and Wildlife Service will be required prior to any construction activities. Consultation with Fish and Wildlife Service has and will continue to occur.

Disturbance to water resources would be temporary and minimal. Hotel Creek west of the hotel would be crossed by the proposed spur road, requiring placement of a culvert. Culvert installation would be designed to allow for fish passage. Although trout from Yellowstone Lake are currently blocked from accessing the creek because the inlet culvert is too high, culvert installation would be designed to allow for fish passage. No disturbance to fish would occur during construction. Since construction would occur during the fall, siltation would be minor, reducing impacts on aquatic organisms.

Effects on air quality would include a temporary local increase of dust, fumes, and smoke from construction activity. Because the construction would occur after seasonal closing of the hotel, impacts to visitors would be minimized.

## CULTURAL RESOURCES

### Archeological Resources

Should any unknown archeological resources be located during pre-construction survey work, design measures would be taken to avoid the site or, if necessary, professional salvage would be undertaken. If archeological materials were discovered during construction, work would be halted until a proper professional evaluation of the site could be completed. The primary mitigating measures at this point would also be site avoidance or salvage if necessary.

### Historical Resources

Although the proposed actions would affect the historic Lake Hotel, no adverse effect would occur. Removal of the existing canopy at the rear of the hotel would be beneficial because it is a non-contributing feature to the historical significance of the hotel. The proposed guest arrival and waiting structure would complement the fabric and design of the hotel; however, it would not physically connect to the structure. Two small porticoes would be physically attached to the hotel. These, too, would complement the historic design of the hotel. The consultation and compliance procedures required by section 106 of the National Historic Preservation Act would be completed prior to any construction activities.

## VISITOR USE

Arrival to the historic front of the hotel would be returned. Confusion by and disorientation of visitors would be reduced by development of a separate access road to the front of the hotel. This road would limit the number of facilities/buildings viewed by the visitor on their way to the hotel, allowing the visitor to view the Yellowstone Lake on the approach to the lakefront road.

Conflicts at the rear of the hotel would be lessened because this part of the hotel would focus on secondary visitor drop off rather than check-in as well. The separation of the hotel's service area from the elevator lobby entrance would relieve congestion and conflicts in that area.

Redesign and expansion of the parking area will enhance traffic flow and provide necessary hotel parking spaces, reducing visitor frustration.

Site restoration work for the project (i.e,. screening of the kitchen service area by fence installation, overall planting around the area), and replacement of non-conforming architectural elements with complementary elements would improve the aesthetics of the hotel and its surroundings.

## NO-ACTION ALTERNATIVE

No new impacts to the natural environment would occur. Vegetation would continue to be trampled by foot traffic and by vehicles parking on islands.

The existing canopy at the rear of the hotel would continue to intrude on the historic scene. The exposed kitchen service area would continue to be a distraction to visitors driving along the access road to the lakefront. These intrusions would continue to give the area an aesthetically unattractive appearance for visitors.

Because the rear of the hotel would continue to be the easiest side of the hotel to reach, primary and secondary entrances would continue at the rear. Congestion problems at the rear of the hotel would continue. Conflicts between visitors and hotel services would continue because no separation would be provided between the two close entrances. Few visitors would experience the historic grandeur of the hotel front because it would remain overshadowed by the heavy visitor use at the rear of the hotel.

Inadequate parking spaces and poor circulation would continue to cause congestion and contribute to safety problems in the parking area.

## CONSULTATION/COORDINATION

The following agencies and persons were consulted in preparation of this environmental assessment:

Staff, Fish and Wildlife Service
Staff, National Park Service, Denver Service Center
Staff, National Park Service, Midwest Archeological Center
Staff, National Park Service, Rocky Mountain Regional Office
Staff, National Park Service, Yellowstone National Park

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